

**LVT7A1 PLENUM COVER OPERATOR TRAINER, DEVICE 16C77****TRAINING CATEGORY:**

COMBINED OPERATIONS (Amphibious)

**ORIGINATING AGENCY:**

CMC

**SECURITY CLASSIFICATION:**

Device 16C77 is unclassified.

**PURPOSE:**

The purpose of the device is to present a 1/4 scale mockup of the upper foredeck of the LVT7A1 vehicle with operable components to simulate the action of the intake and exhaust grills and plenums, the turret handwheel and winch of the actual equipment.

**INTENDED USE:**

The training device will be used to provide military personnel a basic understanding of the operation of the vehicle emergency closing of plenum covers and to instruct them in correct maintenance procedures.

**FUNCTIONAL DESCRIPTION:**

Device 16C77 is a realistic but 1/4 size representation of the foredeck of the LVT7A1 vehicle. It has all the main components including operable intake and exhaust grills and plenums. In the plenums are movable covers and simulated hydraulic pistons and hose with appropriate quick disconnectors. The interior of the vehicle will be accessible and from this area the student will be able to operate the turret handwheel and rotate the machine gun barrel clear of the exhaust grill when opened. The use of a winch to open the exhaust grills, the operation of the cover locks, and viewing of the cover position indicators located on each grill will all be able to be demonstrated.

The mockup is constructed mainly of Lexan which allows for visibility and yet is very stable and strong.

The hull is constructed of 3/8-inch Lexan and painted to be opaque except for windows which are left clear. The commander's hatch and the driver hatch are opaque Lexan. The winch is of aluminum and Delrin. The winch is of aluminum and Delrin. The intake and exhaust grills are of opaque Lexan.

The mockup is mounted on a support stand constructed of 2" x 2" x 3/32" square welded steel tubing. Four inch diameter rubber tired casters with brakes make the mockup easily maneuverable from one location to another for demonstration purposes, and with the brakes locked, the device remains in place.

The major components of the device are labeled to help students become familiar with them in the actual vehicle.

Simulating operation of the hydraulic lines can be achieved with the use of quick disconnect fittings.

Although the components are smaller than those in the actual vehicle, the configuration and location in the vehicle have been maintained.

Intake and exhaust grills and plenum assemblies may be raised 90° from the deck and then lowered.

The winch operates smoothly and easily holds the grill when the handle is released.

The turret azimuth handwheel is used to rotate the turret and the thumb wheel smoothly rotates the simulated armament station.

**PHYSICAL INFORMATION:**

Unit: One (1) - Mockup on a stand  
Size: 38" W x 44" L x 52" H  
Weight: Approximately 335 pounds

**POWER REQUIREMENTS:**

No electrical power is required since Device 16C77 is manually operated.

**PUBLICATIONS FURNISHED:**

An operation and maintenance guide, "LVT7A1 Plenum Cover Operator Trainer", Device 16C77, NTEC, P-6034 (U)".

**PERSONNEL:**

Instructor: One (1)  
Operator: Instructor or trained student  
Trainees: 12 to 15 students

**CONTRACT IDENTIFICATION:**

Manufactured by Ben Lorenz Associates, Inc., Bedford Hills, NY 10507 under NAVTRA-SYSCEN Contract No. N61339-83-C-0025.

**LOCAL STOCK NUMBER:**

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